

Overview

Tracer Dream 120V TU Series adopts MPPT technology. Max.120V solar input,12V/24V auto work.It's also ran by 32 bits CPU,so stability and speed can be guaranteed. Based on the synchronous rectifier technology,the transfer efficiency of circuit can be increased up to 98.5% and the Pmax tracking accuracy up to 99. 5%.So our MPPT can trace the accurate Pmax in the shortest time (10~20s), even when the sunlight changes rapidly. It can perfectly handle extreme weather or weak sunlight.It adopted by common negative design and it can start from solar,Widely used in RV, ship and so on.

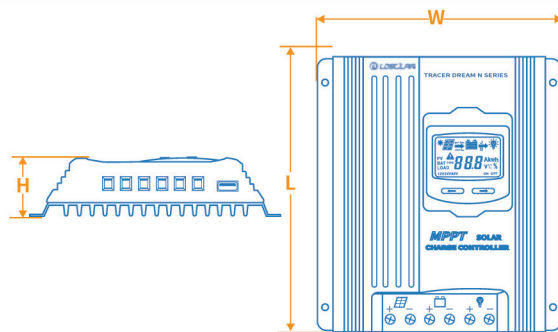
Features

- Advanced MPPT technology, fast and stable track the Maximum Power Point, tracking accuracy 99.5%
- Adopt Synchronous Rectifier Technology, significantly improve the transfer efficiency of circuit, maximum 98.5%.
- accurate identification and tracking multi peak power point function
- PV array limited power input function, to ensure that the controller does not overload operation under any conditions.
- Widely range of Maximum Power Point of PV array, Max PV input Voltage 100V
- 12/24VDC system voltage automatic recognition
- Humanized LCD displaying, dynamic display operation data and working state
- Built-in operation log, account system working state
- Multi load control mode: Normal Mode, Sensor Mode, Timer and Sensor Mode
- 3 stages charging mode, Sealed, Gel, Flooded 3 types battery charging procedure selection
- Temperature Compensation Function
- Accumulation function of charging and discharging, actual time display power generation function
- Fullest digital protection functions: Reverse connection, Overcharging,Over-discharging, Over voltage, Overload, Short circuit.
- 16mm² connectors, red and black connector distinguish plus and minus



Mechanical size

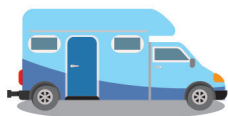
Model	TD2212TU	TD2312TU	TD2412TU
Charge and load current	20A	30A	40A
Size (L×W×H)mm	200×127×54	195×183×54	232.5×200.1×54
Mounting hole size	Φ5mm		
Weight(kg)	0.87	1.2	1.7
Terminal scale	10mm ² /8AWG	16mm ² /6AWG	25mm ² /4AWG



● Please refer to the indicator diagram on the right

● Dimension reference drawing

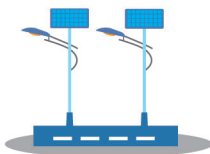
Application scenario



Solar RV



Household solar energy



Solar street lamp



Solar Power Generator



Solar boat

Safety Protection



Over Charging Protection



Over Discharging Protection



Overload Protection



Short Circuit Protection



Solar Reverse Connected Protection



EMC Protection



Battery Reverse Connected Protection



Power Limited Protection



Battery Over-Voltage Protection



Temperature Compensation



Over Temperature Protection



Thunder Protection



Reverse Flow of Current Protection



Solar Short Circuit Protection



Overheating Power Reduction Protection

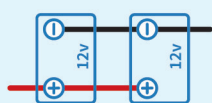


Solar Over-Voltage Protection

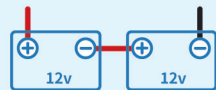
Technical specifications

Model	TD2212TU	TD2312TU	TD2412TU
System Voltage	12V/24V DC auto		
Working voltage range	8~32V		
Max.PV open circuit voltage	120V (Min.working temperature) 95V (25°C)		
MPP voltage range	(Battery voltage+1V) ~75V		
Discharge circuit voltage drop	≤0.25V		
Self-consumption	<23mA		
Rated charge current	20A	30A	40A
Rated discharge current	20A	30A	40A
Max.PV input power	260W/12V 520W/24V	390W/12V 780W/24V	520W/12V 1040W/24V
Grounding	Common negative		
Battery type	Sealed(Default)/Gel/Flood/Lithium		
LVD※*	11.0V ADJ 9V...12V ; x2/24V ; x4/48V		
LVR※*	12.6V ADJ 11V...13.5V ; x2/24V ; x4/48V		
Float Voltage※*	13.8V ADJ 13V... 15V ; x2/24V ; M/48V		
Boost Voltage※*	14.4V ADJ 13V...17V ; x2/24 ; x4/48V battery voltage less than 12.6v auto boost 2hours		
Battery Over Voltage Protection	16.5V ; x2/24V ; x4/48V		
USB Output	5VDC/1A 1PCS		/
Temperature Consumption#	For 12Vsystem:-24mV /°C ; x2/24V ; x4/48V		
RS485 interface	Optional		
Relative humidity	≤95% , N.C.		
WorkingTemperature	-20°C~+50°C(Product can work continuously at full load)		
LCD temperature range	-20°C~+70°C		
Waterproof grade	IP32		

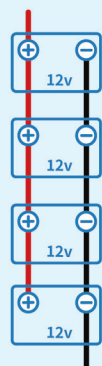
Connection



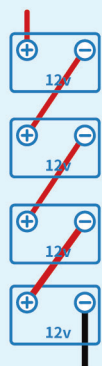
2x12V to 12V parallel



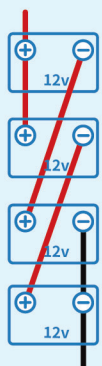
2x 12V to 24V series



4x12V to 12V parallel



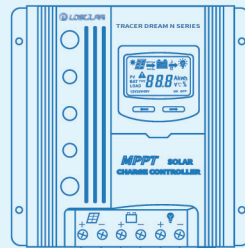
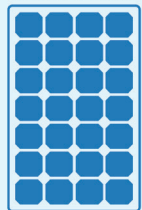
4x12V to 48V series



4x12V to 24V series/parallel

Example Wiring Methods

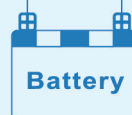
Solar Panel



USB OUTPUT



FUSE



Battery



Connection diagram